



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/040,864	12/28/2001	Paul F.L. Weindorf	10541/502 (V200-0772)	2245

29074 7590 03/11/2004
VISTEON 29074
BRINKS HOFER GILSON & LIONE
P.O. BOX 10395
CHICAGO, IL 60611

EXAMINER

DIAZ, JOSE R

ART UNIT	PAPER NUMBER
----------	--------------

2815

DATE MAILED: 03/11/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<p align="center">Office Action Summary</p>	Application No. 10/040,864	Applicant(s) WEINDORF ET AL.	
	Examiner José R Díaz	Art Unit 2815	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-55 is/are pending in the application.
- 4a) Of the above claim(s) 1-42 and 49 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 43-48 and 50-55 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
6) <input type="checkbox"/> Other: _____ |
|---|--|

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 43-48 and 50-55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Terao et al. (US Pat. No. 6,342,932 B1) in view of Larson (US Pat. No. 5,751,388).

Regarding claims 43 and 55, Terao et al. teaches a LCD device comprising: a light emitting diode (22); a light pipe (15); and a liquid crystal display (11) (see Fig. 3).

However, Terao et al. is silent with respect to the light extracting surface, the diffuser, and the reflective polarizer. Larson teaches that it is well known in the art to include a light extracting surface (104) located near a first side (e.g. bottom surface) of

Art Unit: 2815

the light pipe (102) (see Fig. 4); a diffuser (107) located near a second side (e.g. top surface) of the light pipe (102) (see Fig. 4), where the first and second sides are opposite sides of the light pipe (see Fig. 4); a reflective polarizer (109) (see Fig. 4); wherein light from the light source (103) enters the light pipe (102) and passes through the diffuser (107), the polarizer (109), then backlights the LCD (101) (see col. 10, lines 5-20).

Terao et al. and Larson are analogous art because they are from the same field of endeavor as applicant's invention. At the time of the invention it would have been obvious to a person of ordinary skill in the art to include a light extracting surface, a diffuser, and a reflective polarizer. The motivation for doing so, as is taught by Larson, is to provide an LCD having increased display brightness (col. 3, lines 8-9). Therefore, it would have been obvious to combine Larson with Terao et al. to obtain the invention of claims 43-48 and 50-55.

Regarding claims 44, Terao et al. teaches the LED (22) is located along a perimeter of circuit board (20) (see Fig. 3).

Regarding claim 45, Terao et al. teaches that the circuit board (20) comprises a flexible circuit board (12) (see Fig. 3).

Regarding claim 46, Terao et al. further teaches a thermally conductive material (30) between the circuit board (20) and a frame (10) (see Fig. 3).

Regarding claim 47 and 48, Terao et al. teaches that the LED (22) has a side reflective orientation (please note that the LED is located on one side of the pipe light 15) with the light pipe (15) (see Fig. 3).

Art Unit: 2815

Regarding claims 50 and 51, Terao et al. further teaches a polarization scrambling material or an enhanced specular reflector (see col. 4, lines 49-50, in which a reflecting surface is provided on the holding member 10) between the LED (22) and the light pipe (15) (see Fig. 3), where light from LED (22) reflects from the enhanced specular reflector into the light pipe (15) (see col. 4, lines 47-50).

Regarding claims 52-54, Larson teaches that it is well known in the art to include a second polarization scrambling material or an enhanced diffuser reflector (104) located along the light pipe (102) opposite the LCD (101) (see fig. 4).

Terminal Disclaimer

4. The terminal disclaimers filed on December 5, 2003 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of Applications Numbers. 10/040,855 and 09/939,493 have been reviewed and are accepted. The terminal disclaimers have been recorded.

Response to Arguments

5. Applicant's arguments, see remarks, filed December 5, 2003, with respect to the rejection of claims 45-48 and 50-55 under 35 U.S.C. 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground of rejection is made in view of Larson. The reference Larson discloses the use of reflective polarizer.


Correspondence

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to José R Díaz whose telephone number is (571) 272-1727. The examiner can normally be reached on 9:00-5:00 Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Thomas can be reached on (571) 272-1664. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JRD
3/2/04


Tom Thomas
Supervisory Patent Examiner
Technology Center 2